

## Abstract

To measure the intensity profile of an electron beam the  
5 electron beam (10) is conducted on to a measuring structure  
(16) having areas (20, 22) with different back-scattering  
properties, and back-scattered electrons (24) which are  
produced by scanning of the measuring structure (16) by the  
electron beam (10) by means of a deflector unit (14) are  
10 measured by a sensor ring (26). The measuring structure  
(16) can preferably be installed into and removed from an  
electron-beam welder and consists of a graphite slab (18)  
from which a tungsten needle (22) projects perpendicularly.

15 (Fig. 1)